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FOSSpicks

Sparkling gems and new releases from the world of Free and Open Source Software

Mike Saunders has spent a decade mining the internet for open source treasures. Here's the result of his latest haul…

Lightweight blog platform

Drukkar 2.0

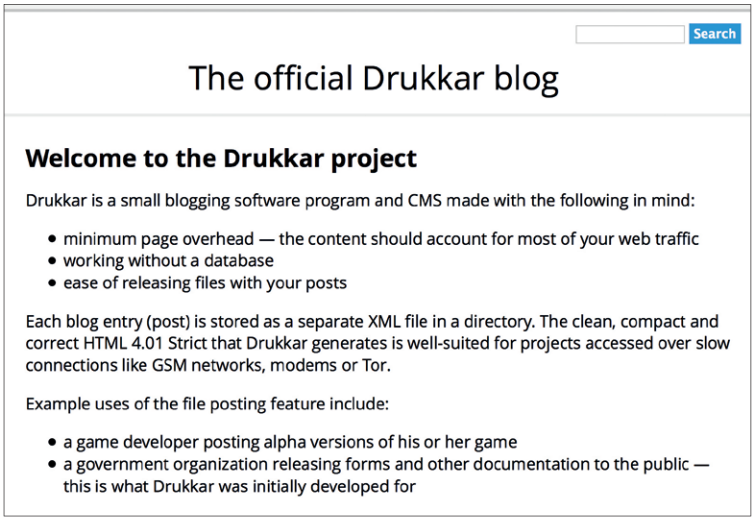
http://drukkar.sourceforge.net

Situation: you want to set up your own blog. Options: a million and one competing blog platforms, each one trying to be more feature-rich, flashy and Web 4.0 than the last. End result: you get tired of trying to work out what's right for you, give up, and go to the pub instead.

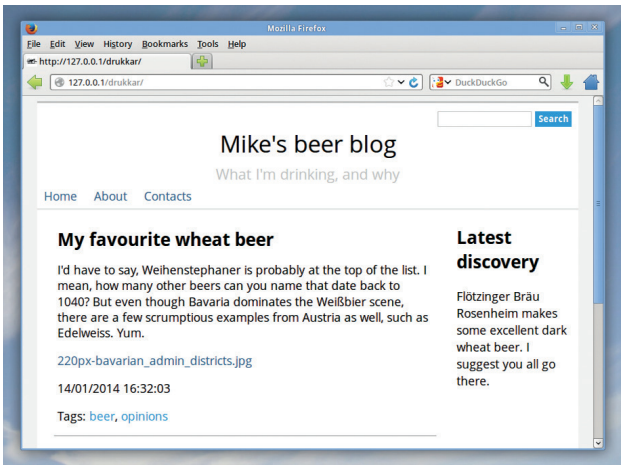
Sounds familiar? Most of us don't need whizz-bang WordPress installations with all the trimmings for our day-to-day musings, and Drukkar does a splendid job with minimal requirements. It doesn't need a database or special Apache modules or anything like that – its only requirement is a web server with PHP. Drukkar stores blog entries as simple XML files, and is designed with minimum bandwidth overheads, so the "content should account for most of your web traffic" as the developer puts it.

Nice and simple

To install Drukkar, extract its **.zip** file directly into a location on your web server (note that it won't create a subdirectory during extraction). Then edit **config.xml** and set the **base_url** and **base_location** settings to match your installation path. Finally, make sure that the entries, files and cache directories are writable by your web server account (eg **www-data** on Debian/Ubuntu systems).


Search
The official Drukkar blog
Welcome to the Drukkar project
Drukkar is a small blogging software program and CMS made with the following in mind:
• minimum page overhead — the content should account for most of your web traffic
• working without a database
• ease of releasing files with your posts
Each blog entry (post) is stored as a separate XML file in a directory. The clean, compact and correct HTML 4.01 Strict that Drukkar generates is well-suited for projects accessed over slow connections like GSM networks, modems or Tor.
Example uses of the file posting feature include:
• a game developer posting alpha versions of his or her game
• a government organization releasing forms and other documentation to the public — this is what Drukkar was initially developed for

The official webpage of Drukkar is made in, you guessed it, Drukkar – a good old open source "eating your own dogfood" approach.


Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://127.0.0.1/drukkar/
127.0.0.1/drukkar/
DuckDuckGo
Search
Mike's beer blog
What I'm drinking, and why
Home About Contacts
My favourite wheat beer
I'd have to say, Weihenstephaner is probably at the top of the list. I mean, how many other beers can you name that date back to 1040? But even though Bavaria dominates the Weißbier scene, there are a few scrumptious examples from Austria as well, such as Edelweiss. Yum.
220px-bavarian_admin_districts.jpg
14/01/2014 16:32:03
Tags: beer, opinions
Latest discovery
Flötzinger Bräu Rosenheim makes some excellent dark wheat beer. I suggest you all go there.

Drukkar's default theme, "flat", is clean and simple. To change the text on the right, edit **inc/sidebar.php**.

Now access the Drukkar installation in your web browser, and *voilà*: your blog is ready to go. You can see that a sample entry has been created automatically. To add new entries, go to **edit.php** in your Drukkar installation and enter the admin password (by default it's just **password**). You can then add a new blog entry in plain text, HTML or Markdown. It's possible to add tags to entries for organising them later, and add files to them as well (go to files.php to manage them).

See **config.xml** for more options, such as changing the blog's title and creating a new password. It's all charmingly simple, lightning fast and no-nonsense – we've got it running for a tech-shy relative who wants his own type-and-go blog.

Operating system

Android-x86 4.4 RC

www.android-x86.org

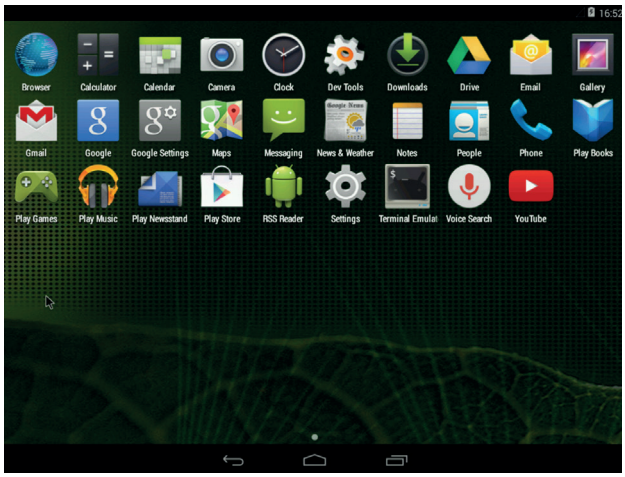
Yes, you can run the world's most popular mobile operating system on your desktop PC. And no, there are no pressing reasons to do so, other than out of curiosity. But that's why we love Linux and Free Software, right? If you're absolutely bursting to do some Android development but can't get your mitts on an Android-powered smartphone or tablet, this project might help you out somewhat. Bearing in mind that Android was developed specifically for handheld devices, don't expect to be amazed with this PC port.

Still, it's surprisingly usable. Android-x86 is available from the project website (and on the Linux Voice DVD) as an ISO image that you can burn to a CD-R, or alternatively, boot in VirtualBox. If you do the latter, make sure that you provide at least 32MB of video RAM to the VM, and choose SoundBlaster 16 for the emulated sound card. Boot from the ISO image and at the initial menu, hit Enter on the first entry to start the OS in live mode, running straight from the disc. You'll be asked a few questions before reaching the home screen. If you're running VirtualBox, you can skip the question about Wi-Fi networks; Android will use the emulated network adaptor. Also, if you can't see the mouse pointer, try disabling mouse integration from the VirtualBox menu.

From here, it's very much standard Android: the black bar at the bottom of the screen is almost always present, and includes three buttons. The first takes you back to the previous screen (useful if you've dived into several levels of settings), while the second takes you back to the home screen from whatever app you're using. The third button brings up a simple task manager for switching between apps.

Our new Google overlords

Click the circle button with six dots inside to view the included software. Android-x86 bundles Google's apps, so you can immediately use Google+, Google Maps and other services without extra fiddling. The Play Store is also provided as well. We're pleased to see that a terminal emulator is included by default: its fonts are ridiculously tiny, so click the three-dot icon in the top-right (Android's stock button for settings), go to Preferences, and finally Font Size. When you've selected something better (eg 16pt), click the back arrow in the bottom bar.

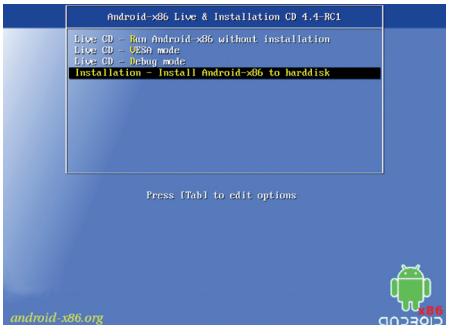


The usual gamut of Android apps is bundled, along with a terminal emulator.

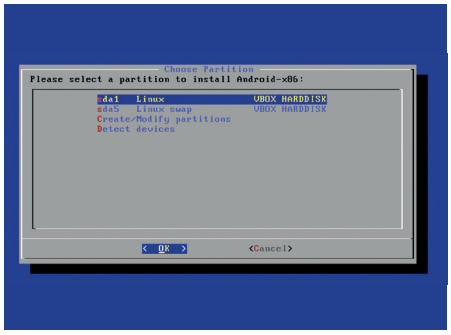
> "In time Android might be a useful desktop OS for users who are already familiar with its interface."

Android as a PC OS is little more than a novelty at this stage, but in time it might be a useful desktop OS for non-technical users who are already familiar with its interface on a smartphone or tablet. If we ever had the time to do our podcast challenges, "use Android-x86 as our sole desktop OS for a week" would be a darn good 'un...

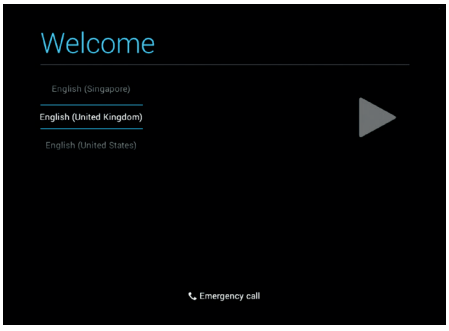
How it works: install Android-x86 to your hard drive


Android-x86 Live & Installation CD 4.4-RC1
Live CD - Run Android-x86 without installation
Live CD - VESA mode
Live CD - Debug mode
Installation - Install Android-x86 to harddisk
Press [Tab] to edit options
android-x86.org

1 Boot
Burn the ISO image to a CD-R – you'll find it on this mont's cover DVD – and boot from it. At the initial menu, select the 4th option: Installation.



2 Partition
Choose a partition on your drive for the Android files. (This will wipe the data!) If you need to partition manually, the third option runs **cfdisk**.



3 Install
Choose ext3 as the file format, choose to install Grub, and the files will be copied over. Reboot and enjoy exploring the OS.

Screenshot creator/editor

HotShots 2.1.0

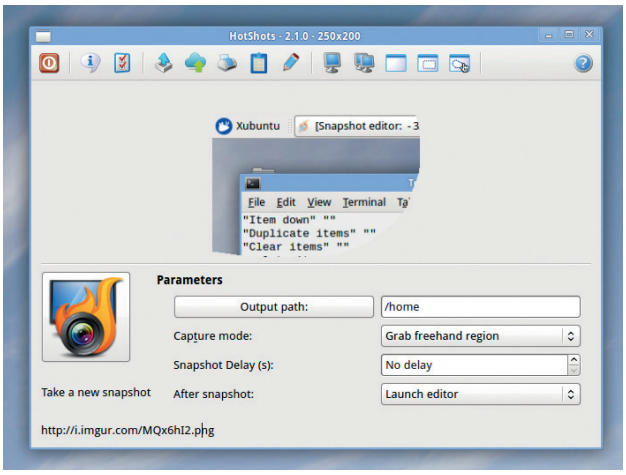
http://sourceforge.net/projects/hotshots

It's something of a cliché to say "Foo is like Bar on steroids", but that certainly applies here. HotShots is a screenshot creation and editing tool with nigh-on every feature you can imagine rolled in, and it does a sterling job. You might think: what's so special about taking a screenshot? Just hit the Print Screen key. Well, that's fine if you just want a rather generic capture of the screen, but if you want to add effects or annotations, it's better to use a specialist tool.

HotShots uses Qt4 for its interface, and the dependencies you'll need on Debian/Ubuntu-based systems are **qt4-qmake**, **libqt4-dev**, **libxtq-dev** and **libxfixes-dev**. Its installation process includes several alternative methods – see **INSTALL.txt** for the full details. Once you have it installed, enter **hotshots** and the main window will pop up. The app also drops an icon in your notification area, so you can easily pop it up when needed.

Many, many extras

In the main window, the most important widget is Capture Mode. Along with grabbing the whole screen or a specific region, this also lets you save hand-drawn regions with smoothed edges – something we haven't seen in other screenshot creation tools. Click the fire button on the left, and after you've chosen the area to grab, the editor will pop up. This is a mightily powerful tool that lets you add snazzy-looking shapes, arrows, numbered tags and text boxes; very useful if you're writing documentation and want to explain parts of an interface.



HotShots lets you draw areas on the screen to take as a screenshot, with the background set as transparent.

You can save your work as a **.hot** file for later editing (eg if you want to reposition elements), or export it in PNG, BMP, GIF and other formats. It's even possible to upload screenshots to an FTP server or image hosting site like Imgur with a single click – great if you need to quickly show someone else on the net your current screen state.

CSS compressor

rCSSmin 1.0.3

http://opensource.perlig.de/rcssmin

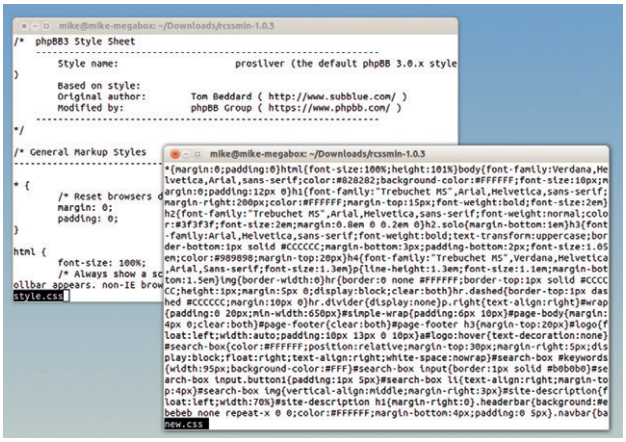
If you're developing a website, it's all too easy to focus on home or office users with fast connections and unlimited bandwidth. But there's an increasing number of people on expensive mobile data tariffs, and there are still some people stuck on dial-up, so it's important to consider all types of users and reduce your site's overall data requirements.

rCSSmin helps in this process by crunching your CSS files to the bare essentials. Chances are that your CSS contains lots of whitespace and comments to make it easy to read and edit, but the web browser doesn't care about that – it just wants the information. rCSSmin doesn't pull any fancy tricks or pretend it knows your CSS better than you do, though. It simply strips out spaces, comments, semi-colons (where possible) and other bits and bobs that aren't required.

Two versions are provided: one is written in Python, takes its input via **stdin**, and spits the results to **stdout**. So if you have a file called **style.css**, compress it like this:

```
cat style.css | ./rcssmin.py > new.css
```

Have a look in **new.css**, and you'll see that it's not as readable as before, but considerably smaller. We tested it with a CSS file from the Linux Voice Forums, and rCSSmin managed to shrink it down from 70k to 40k. This isn't a world-quaking change, but if you're running a big website serving up hundreds of thousands of CSS files every day, it all adds up and saves you bandwidth costs too.



Before and after: our 70k CSS file in the left-hand window, and its 40k crunched version on the right.

> **"It's important to reduce your site's overall data requirements."**

The C version is designed with performance in mind (it's up to 50 times faster than the Python one), so you can even use it at runtime on your sites (ie crunching CSS on the fly as it's served up).

Mountain finder

Gipfel 0.4.0

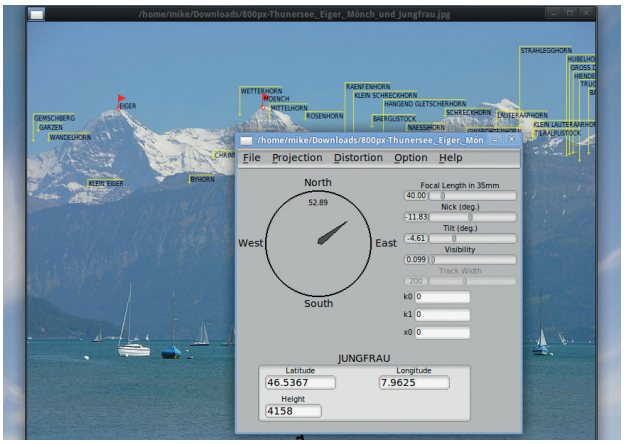
www.ecademix.com/JohannesHofmann/gipfel.html

So you've had a lovely holiday in the Alps, and taken plenty of photos. Back home, you load up the pictures on your Linux box and start browsing them. "Aha", you say, "there's the Zugspitze, Germany's highest mountain. But what's that one behind it?" With some messing around on Google Maps and Wikipedia, you could probably find the name of the mountain in question, but Gipfel makes it easier – and more fun.

Using FLTK for the interface, Gipfel's dependencies are **libtiff4-dev**, **libjpeg62-dev**, **libexiv2-dev**, **libgsl0-dev** and **libfltk1.3-dev**. Once you have the program started, click File > Load Image in the menu, and select a photo from your collection. Choose a picture that includes several distinct peaks, where you can identify two of them, but the rest are unknown to you.

With the picture open, click File > Choose Viewpoint and select the name of a mountain that you know is in the picture. (The database is extensive but some of the names are a bit off – for instance, the Großvenediger in Austria is written as "Gross Venediger".) Now right-click on the picture and choose Find Peak. Enter the name of the mountain again, click OK, and a red symbol will appear. Drag this to the top of the known mountain.

Now repeat this process, right-clicking and choosing Find Peak again, dragging the icon to the other known mountain. If all is well, Gipfel will calculate the location from which you took the photo, and add labels to the tops of other mountains in the picture.



Gipfel can show labels for mountains behind the ones in the picture, so reduce the visibility setting to make things clearer.

> **"Gipfel will add labels to the tops of other mountains in the picture."**

It's possible to manually adjust your latitude and longitude, and also tweak various angles and settings to match your photo more closely. It's a clever little app when it works correctly – it just takes some fiddling to get right.

Text-mode web browser

Lynx 2.8.8

http://lynx.isc.org

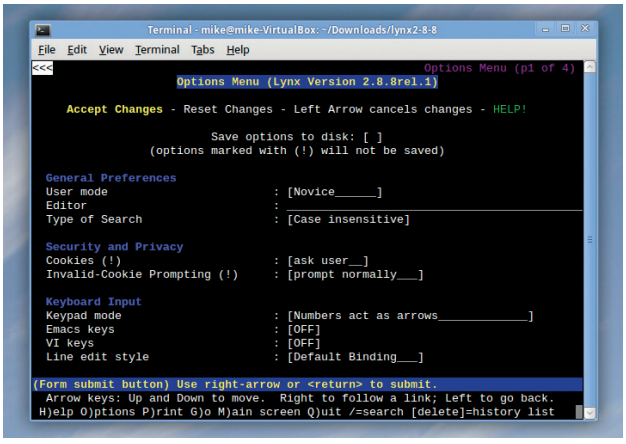
We love programs that run on almost every OS under the sun. Lynx, the venerable text-mode web browser that has been doing the rounds since 1992, has just seen a new release. And this release has been tested on (deep breath): Linux, FreeBSD, NetBSD, OpenBSD, OpenVMS, AIX, HP-UX, Haiku, IRIX, Solaris, Tru64, Mac OS X, and even that weird Windows thing that some people still use.

Now, Lynx is quite limited as a web browser, given that it operates in text mode, but it's good to have around. If something goes wonky with your X server and you need to search the web for help or drivers, you'll need a browser that runs in the plain text terminal. Lynx doesn't attempt to recreate complex layouts, but for text-heavy sites it does a respectable job.

Bare-bones browser

The only major requirement to build Lynx is (n)curses. Once you have it running, hit G to enter a URL. Use the cursor keys to navigate through links, enter to follow a link, the left cursor key to go back, and Ctrl+P/N to scroll two lines backwards/forwards. Hit Shift+G to edit the current URL, backspace to bring up the history, and forward slash to do a search. Lynx has an impressive range of features tucked away - so enter H to bring up the help. When you're finished, Q quits.

New features in version 2.8.8 include: **submit**, **reset** and **pwd** commands; a progress bar that's now compiled in by default and available in the options screen; improvements to SSL support; and better interpretation of HTML code.


Terminal - mike@mike-VirtualBox: ~/Downloads/lynx2-8-8
File Edit View Terminal Tabs Help
Options Menu (p1 of 4)
Options Menu (Lynx Version 2.8.8rel.1)
Accept Changes - Reset Changes - Left Arrow cancels changes - HELP!
Save options to disk: [ ]
(options marked with (!) will not be saved)
General Preferences
User mode : [Novice_____]
Editor :
Type of Search : [Case insensitive]
Security and Privacy
Cookies (!) : [ask user__]
Invalid-Cookie Prompting (!) : [prompt normally___]
Keyboard Input
Keypad mode : [Numbers act as arrows_____]
Emacs keys : [OFF]
VI keys : [OFF]
Line edit style : [Default Binding___]
(Form submit button) Use right-arrow or <return> to submit.
Arrow keys: Up and Down to move. Right to follow a link; Left to go back.
H)elp O)ptions P)rint G)o M)ain screen Q)uit /=search [delete]=history list

Hit O to bring up the options screen, which is full of tweakable bits 'n' bobs.

We're really chuffed to see Lynx being updated to support the latest web technologies – it's good to know that it's always there, even when you're exploring some random, obscure Unix variant that few people have heard of.

PDF and PostScript file annotator

Flpsed 0.7.2

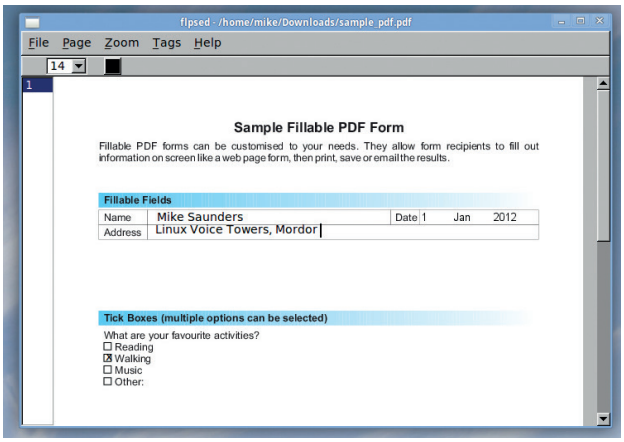
www.flpsed.org/flpsed.html

Despite the best efforts of the Free Software community, people still send Microsoft Word **.doc** files around as if they were some kind of standard. We always recommend that people install LibreOffice and use an open file format, but our words often fall on deaf ears. Usually, the best success we have is asking people to send us documents as PDFs – at least they will render the same across different platforms.

Now, that's all good and well until someone sends you a form to fill in. If your PDF reader doesn't support this facility, you might be tempted to install the dreadfully bloated Adobe Reader, which makes your hard drive grind on start-up and perpetually annoys you with "update me!" pop-ups.

Flpsed is a super-simple lightweight little app that lets you add text to PDF and PostScript documents, without changing the structure of them. You simply add lines of text at whatever position you want, and then re-export the file as a PDF. This means you can fill in forms in seconds without having to mess around in a much more complicated app.

It's built with FLTK, and has a very sparse interface: click File > Open File and choose a document. Then set your font size and colour using the widgets in the toolbar, click on the relevant position in the document, and start typing. When you're done, click File > Export PDF.


flpsed - /home/mike/Downloads/sample_pdf.pdf
File Page Zoom Tags Help
Sample Fillable PDF Form
Fillable PDF forms can be customised to your needs. They allow form recipients to fill out information on screen like a web page form, then print, save or email the results.
Fillable Fields
Name Mike Saunders Date 1 Jan 2012
Address Linux Voice Towers, Mordor
Tick Boxes (multiple options can be selected)
What are your favourite activities?
Reading
Walking
Music
Other:

Flpsed doesn't alter the structure of PDF documents - it just adds another layer of text on top.

> **"You simply add lines of text, then re-export the file as a PDF."**

This is good enough, but Flpsed has an awesome extra feature: batch processing. It's possible to add tags to PDFs that will later be replaced by custom text strings, so you can, for instance, automatically add text to a bunch of forms without having to go through each one manually.

Security auditing tool

Lynis 1.4.1

http://cisofy.com/lynis

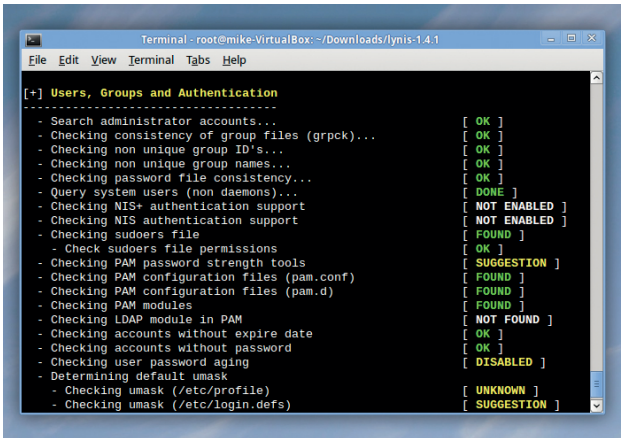
Security is a moving target: you can harden your systems to an almost unbreakable degree, but there's no guarantee that they'll be equally robust tomorrow, when new vulnerabilities are discovered. It's also a vast topic, and if you've been given the job of making a Linux box ultra secure, it's hard to know where to start. You've got packages to update, user accounts to maintain, settings in **/etc** to check... it adds up.

Lynis provides a one-stop-shop for checking your system's security. It's a script that pokes around in various parts of your Linux installation, alerting you to potential problems. Usefully, it's written in plain shell script (so it will run on virtually every Linux distro in existence) and can be executed in place without installation. To use it all you need to enter is:

```
tar xfv lynis-1.4.1.tar.gz
cd lynis-1.4.1/
sudo ./lynis -c
```

(The **-c** flag performs a complete check – just run **sudo ./lynis** on its own to see all available options.) Lynis works step-by-step through different aspects of your setup, pausing along the way to help you see what's going on. It looks at potential problems in user and group settings, looks for vulnerable packages, checks file permissions, tests your networking setup, looks at your compiler configuration, and many other things.

As the scan progresses, Lynis provides feedback in different colours: green means that everything's OK, yellow is used for warnings, and red signifies major problems. Once the scan has completed, you're given a much more detailed set of instructions for fixing issues that have cropped up.


Terminal - root@mike-VirtualBox: ~/Downloads/lynis-1.4.1
File Edit View Terminal Tabs Help
[+] Users, Groups and Authentication
- Search administrator accounts... [OK]
- Checking consistency of group files (grpck)... [OK]
- Checking non unique group ID's... [OK]
- Checking non unique group names... [OK]
- Checking password file consistency... [OK]
- Query system users (non daemons)... [DONE]
- Checking NIS+ authentication support [NOT ENABLED]
- Checking NIS authentication support [NOT ENABLED]
- Checking sudoers file [FOUND]
- Check sudoers file permissions [OK]
- Checking PAM password strength tools [SUGGESTION]
- Checking PAM configuration files (pam.conf) [FOUND]
- Checking PAM configuration files (pam.d) [FOUND]
- Checking PAM modules [FOUND]
- Checking LDAP module in PAM [NOT FOUND]
- Checking accounts without expire date [OK]
- Checking accounts without password [OK]
- Checking user password aging [DISABLED]
- Determining default umask
- Checking umask (/etc/profile) [UNKNOWN]
- Checking umask (/etc/login.defs) [SUGGESTION]

Lynis doing a scan: it has some suggestions for user and group settings, which it will explain in more detail at the end.

Lynis is no silver bullet and won't make your machines impenetrable, but it's well worth keeping around and running periodically to keep one step ahead of crackers.

FOSSPICKS Brain relaxers

Deliberately annoying Tetris variant

NightmareTris 1.0

https://github.com/giacomodrago/nightmaretris

Tetris does funny things to your brain. Play it for long enough, and you'll start to wonder if the game is trying to taunt you, giving you especially awkward pieces at the most difficult moments. In reality, most Tetris variants pick pieces at random, so you just have to hope that your luck is in. NightmareTris is different though: it includes an algorithm that deliberately chooses the worst pieces for your current situation. Need the long thin one to get rid of four lines? You ain't going to get it...

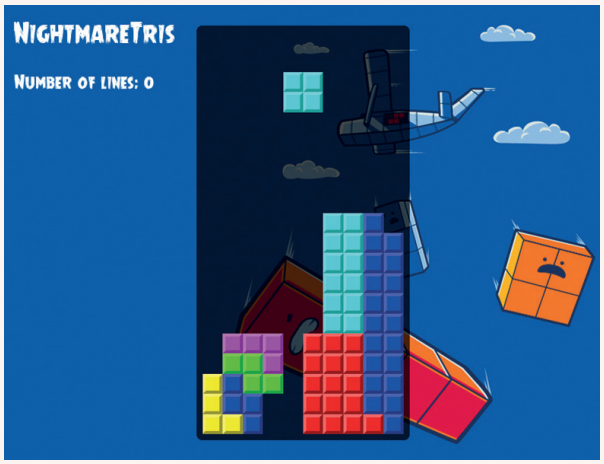
As well as being annoying to play, NightmareTris is a bit fiddly to install. It's written using LÖVE, a 2D game engine; the versions of **love** and **liblove** available in Ubuntu 13.10's repositories don't work properly with the game, so if you're using that distro, get the latest packages from **www.love2d.org**. Then run the game as follows:

```
love NightmareTris.love
```

(Add **--windowed** to the end of the command to disable full-screen mode.) Hit F2, and a standard-looking game of Tetris begins: use the left and right cursor keys to move pieces sideways, up to rotate them, and down to drop the piece to the bottom.

Curse my metal body!

There's no music or fancy effects, but the gameplay is great: it's classic Tetris, made extra difficult.



How many times are we going to get a 2x2 block? Until we lose the game, clearly...

Sometimes the game doesn't seem to be too evil, but you know that it's only planning to make your life harder down the line.

If you enjoy a spot of Tetris but got bored with the standard variants years ago (how could you?!), it's well worth trying this. Don't punch your monitor too hard though...

Souped-up Tron-like game

Zatacka X 0.1.6

https://github.com/simenheg/zatackax

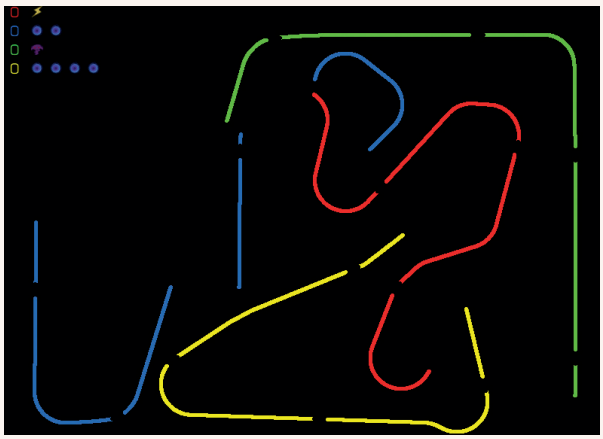
We've seen countless Tron-inspired games come and go over the years, and they're all pretty much the same: you control a moving dot that leaves a path behind it, and CPU-controlled opponents also zip around, leaving trails on the screen. Your goal is to survive for as long as possible without crashing into any of the trails.

Zatacka X takes a slightly different approach; it's based on a game called "Achtung, die Kurve" (watch out for the curve) with some extra goodies sprinkled on top. Getting it compiled is fairly simple as it just depends on common SDL libraries: in Debian/Ubuntu-based systems you can get these via **libsdl1.2-dev**, **libsdl-mixer1.2-dev**, **libsdl-ttf2.0-dev** and **libsdl-image1.2-dev**.

Build the game with **make** and run it in place with **./zatackax**. The game is set up for multiplayer, but if you want to play against the computer, go to Settings > Player Config and set the AI for extra players to On. At the main screen, highlight Start Game and press the right arrow key to add the AI players you just enabled, then hit Enter.

Race against the machine

Before the game begins, there's a choice of power ups: these give you temporary boosts, or afflict your opponents. Hit Enter again to start playing. Use the left and right keys to change the direction of your line, and up to use a power-up. You'll notice your line changes direction in a smooth curve, rather than at right-angles like in other Tron-esque games, and the power ups make it much more entertaining.



Trails occasionally have gaps in them, leaving possible escape routes when the arena starts to get full.